Questions of grade four second term

April exam

عند إعداد الاختبار يراعى ما يلى :

- يغطى الاختبار كافة الدروس بدءًا من الوحدة الثانية الفصل الدراسي الاول (الحركة) المفهوم الرابع (الطاقة والتصادم) إلى نهاية النشاط (٧) تكوين الوقود الحفري (صفحة ٤٠) بالمفهوم الثاني (الوقود) من كتاب الفصل الدراسي الثاني بواقع سؤالين لكل مفهوم.
- تتنوع أسئلة الاختبار الواحد من حيث نمط السؤال والمستوى الذي تقيسه.
- يتم تقييم الأسئلة بحيث يأخذ التلميذ درجة السؤال كاملة إذا قدم إجابة علمية منطقية.
- يتضمن الاختبار خمس أسئلة وكل سؤال عدد من المفردات بإجمالى (٢٠ مفردة) وإجمالى الدرجة النهائية للاختبار (٣٠ درجة)، وذلك على النحو التالى:

نمط السؤال	عدد المفردات	درجة كل مفردة	مجموع الدرجات
السؤال الأول: اختر الاجابة الصحيحة مما بين القوسين	5	2	10
السؤال الثانى : اكتب علامة (√) أمام العبارة الصحيحة و علامة (X) أمام العبارة غير الصحيحة.	5	١	٥
السؤال الثالث: اكتب المصطلح العلمي المناسب لكل عبارة من العبارات	5	2	10
السؤال الرابع : صل من العمود (أ) ما يناسبه من العمود (ب)	٣	١	٣
السؤال الخامس : الاسئلة المفتوحة(ماذا يحدث في الحالات التالية، اكمل حسب الصورة التي امامك، فكر واجب)	٢	١	٢
المجموع	15		٣٠

Q1: Put (√) or (X) :

.١ The weight of the car affects its speed. ( )

.٢ Because of the seat belt, the driver cannot see the road clearly. ( )

.٣ After car collision, the air bag deflates the same speed as it inflates. ( )

.٤ The high-speed moving objects face less danger than the slower objects. ( )

.٥ The driver should drive as fast as possible to avoid accidents. ( )

.٦ Mars is located a few meters away from Earth. ( )

.٧ There is energy loss when energy is transformed from one form to another. ( )

.٨ Energy cannot be transformed from one form to another. ( )

.٩ Most of energy chains start with the moon energy. ( )

.١٠ Both of the electric bulb and the electric heater produce thermal energy. ( )

.١١ When pedaling a bike, the chemical energy in your body turns into kinetic energy. ( )

.١٢ There is a stored chemical energy inside the food we eat. ( )

.١٣ The produced sound energy helps the hair dryer to do its function. ( )

.١٤ The energy chain of a burning candle is: chemical energy converted into thermal energy &light energy ( )

.١٥ Mars Curiosity can be operated from a distance. ( )

.١٦ As the speed of the car increases, the amount of used fuel decreases. ( )

.١٧ We cannot drive a car that doesn't contain fuel. ( )

.١٨ Biofuel is one of non-renewable resources of energy. ( )

.١٩ The Sun is the primary source of forming both biofuel and fossil fuel. ( )

Q2 Write the scientific term of the following:

1. The process in which two objects or more crash into each other and includes an energy transfer. (……………)
2. A liquid that stores the chemical energy and it is extracted from the fuel to move the car. (……………)
3. Safety equipment is used to prevent car passengers from moving forward when the car stops suddenly. (……………)
4. Safety equipment that is used to provide soft cushion when it is inflated automatically with a gas during collision of cars. (……………)
5. A heavy steel ball that swings on a cable and it is used in the destruction of parts of buildings. (……………)
6. The form of energy that is stored in battery of remote controlling. (……………)
7. The wasted energy from a computer. (……………)
8. The stored energy in batteries in the light energy. (……………)
9. The energy produced from playing the guitar. (……………)
10. A device used to convert electrical energy into light energy. (……………)
11. The energy produced when the wood of trees is burned. (……………)
12. Energy can neither be created nor destroyed, but only converted from one form to another. (……………)
13. A kind of energy that is produced from the electrical heater and burning coal. (……………)
14. The energy that is produced from the blender and helps it in doing its job. (……………)
15. The main sources of energy for most forms of energies on Earth. (……………)
16. It is any substance which produces thermal energy on burning. (……………)
17. Natural resources of energy which take a very long period of time to be formed. (……………)
18. It is a type of fossil fuel that is produced from dead marine animals. (……………)
19. It is a form of biofuel, which can be made from some (……………)

types of plants such as grass and wood chips.

Q3:Choose from column (B) what suits it in column (A)

1-

A	B
1-The object´s mass 2-The object´s height from the Earth´s surface 3-The velocity of a moving object 4-On the Erath´s surface	a- It affects the kinetic energy of a moving object not on its potential energy. b- It affects the kinetic energy and the potential energy of the object. c- when it decreases, the kinetic energy increases. d- when it increases, the stored potential energy increases. e-the potential energy equals zero.

2-

A	B
1- The sun 2- Benzene 3- The fan	a- It is operated by electricity. b-Its light energy changes into chemical energy in plants. c-It is a liquid that can be used as a fuel for cars.

3-

A	B
1-Water 2-Coal 3-The sun	a-It needs extreme heat and pressure to be formed from remains of dead plants. b-It is the main resource of energy on the Erath´s surface. c-It is a liquid renewable resource of energy.

Q4 : Complete the following:

1. As a result of hitting the ball with the bat, the direction of the ball will ……………
2. During a car crash, the ……… is inflated with a gas .
3. Engineers try to reduce the weight of the solar vehicles to increase its ……..
4. The speed of ………. vehicles is slower than that of normal vehicles.
5. When the mass of a moving object decreases, its kinetic energy …………at the same speed.
6. To operate an electric mixer we use ………… energy.
7. The energy can be ………. from one form to another.
8. In any energy chain, some of the energy is lost in the form of ………..
9. The energy that is produced from the battery and used to operate a toy car is ……….. energy.
10. The electric lamp converts …….. energy into light and heat energy.
11. In electric heater, ………. Energy is considered as an input energy , while thermal energy is considered as ………. energy.
12. The mobile phone converts chemical energy stored in its batteries into …….energy and ………… energy.
13. When you ride a bicycle, the ……..energy stored in your body is converted into ………. energy which causes the bicycle to move.
14. The energies that are produced from the washing machine are …..energy and …………energy.
15. On Mars planet, Curiosity robot can be operated for a long period of time by using ……….energy from sunlight that is converted into

………..energy used to recharge its batteries.

16. Coal and …………can be used in electric power stations to generate electricity.

17. We can use some forms of fuel such as ……….and ………..in warming houses.

18. ………… is example of biofuel, while ……………is example of fossil fuel.

Q5 : Complete the write answer between brackets:

1.	When the car stops suddenly, the passengers move ………	(forward - backward)
2.	When objects crash with each other, then …….transfers between them.	(distance - energy)
3.	The big truck needs …. engine.	(big - small)
4.	When the car fuel completely runs out, then the car's …… becomes zero.	(mass - speed)
5.	Kinetic energy is not affected by the ……….	(mass - color)
6.	In a battery of a toy car ……….. energy changes into electrical energy.	(chemical – sound)
7.	Curiosity rover is designed to explore ……..	(Mars planet – The moon)
8.	Electric wires are made of ………….	(wood – copper)
9.	When you use the hand ball, the ….energy changed into sound energy.	(electrical – kinetic)
10.	When you turn on a light bulb, the electrical energy travels through ………. until reaching the bulb.	(plastic – wires)
11.	Both hair dryer and electric water kettle produce ………..energy.	(thermal - light)
12.	The produced …… energy doesn't help the blender do its job.	(sound - kinetic)
13.	When a piece of coal is burnt ………. energy is produced.	(potential - thermal)

14.	The car needs ……….to move.	(fuel - water)
15.	To keep playing with the toy car we have to ………….the batteries.	(replacing - heat)
16.	All the following are found deeply under earth's surface except ……	(coal - green plant)
17.	Coal is a type of fuel, which is used in all the following purposes except ………..	(warming houses - operating T.V)
18.	Ancient people use ……… as a form of fuel before discovering gasoline.	(wind - wood)

Q6 :

A. Answer the following questions

1 - Mention some of the safety equipment in the car?

……………………………………………………………. ………………

2-…….. works on starting the air bag inflating process in case of accidents.

B. What happens if …..?

1- The mass of a moving object increases when it moves downward along a ramp. (according to its kinetic energy).
2- Two bicycles moving in an opposite direction collide with each other.
3- Your hand is approached to lighting electric lamp.
4- The remains of marine were buried under the Erath´s surface over millions of years.

C. From the opposite figure:

a-What is the name of this device?

b-It changes energy from………energy to …………….energy .

Q7 : Choose the correct answer:-

1. A plugged-in lamp can turn _____ energy to ______ energy.
   a. electrical; light b- electrical; light
   d. chemical; light d. chemical; heat

.٢ As energy transforms from one form to another, some of it is often lost as:

a. light
b. heat
c. sound
d. movement

The airbag helps to ……….

a-Reduce the speed of a person’s movement forward.
b-Increase the speed of a person’s movement forward.
c-Reduce the speed of a person's movement backwards.
d-Increase the speed of the person's movement backwards.

4. The airbag is made of ……………………

a-carton
b- nylon
c-rubber
d-cloth

5. All the following are found deeply under the Earth´s surface, <u>except</u>………..

a-natural gas
b- coal
c- green plants
d- oil

6. …………..is considered as the main resource of energy on the Erath´s surface.

A-Gasoline
B- The Sun
C-Natural gas
D- The Moon.